

REMARKS**AMENDMENTS TO THE CLAIMS:**

Claims 1 to 35 were cancelled.

New Claims 36 to 69 were added.

Claims 36 to 69 are pending.

Support for the newly added Claims 36 to 69 may be found in the specification as originally filed. Specifically, support for new Claims 36 thru 40, and new Claims 49 and 52 may be found in original Claims 1, and 11, the legend of Figures 1A-B in paragraph [0027], paragraph [0069], paragraph [0096], paragraph [0108], the ATCC Deposit Receipt submitted concurrently herewith, and throughout the application as originally filed. No new matter has been added.

Support for new Claims 41 thru 43, and new Claims 67 to 69 may be found in original Claims 7 to 10, and throughout the application as originally filed. No new matter has been added.

Support for new Claims 44 thru 46 may be found in paragraphs [0105], [0156], Example 3 of the instant specification, and throughout the application as originally filed. No new matter has been added.

Support for new Claims 47 and 48 may be found in original Claims 1, 11, in paragraphs [0071], [0090], [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, and throughout the application as originally filed. No new matter has been added.

Support for new Claims 50 and 51 may be found in paragraph [0053] and [0196] for the "contiguous" term; in Example 10 for 184 deletion mutant sequences of SEQ ID NO:2 that are "at least 352 contiguous amino acids" (e.g., from E92-L443 to M1-L443 in paragraph [0298], and from C352-L443 to M1-L443 in paragraph [0299]), [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph

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[0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in Figures 1A-B, in SEQ ID NO:1 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants remind the Examiner that there is no requirement for a limitation to be explicitly supported word-for-word in the specification in order for the written description requirement to be satisfied. Rather, the M.P.E.P. states that claim limitations may be supported in the specification through “express, implicit, or inherent disclosure...” and that “there is no *in haec verba* requirement” (see M.P.E.P. 2163(I)(B))(emphasis added). Rather, the M.P.E.P. teaches that whether the written description requirement is met turns on whether “...a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification...See, e.g., *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, USPQ 391, 395 (CCPA 1972)(stating “the description need not be in *ipsis verbis* [i.e., “in the same words”] to be sufficient”). (see M.P.E.P. 2163(II)(A)(3)(a))(emphasis added). No new matter has been added.

Support for new Claims 53 and 54 may be found in original Claims 5 and 6, in paragraphs [0289], [0298], in Example 10, and in paragraphs [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in SEQ ID NO:1 and 2 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants point out that nucleotides “566 to 1648” of SEQ ID NO:1 encode amino acids “83 to 443” of SEQ ID NO:2 which is apparent by reference to Figures 1A-B in conjunction with SEQ ID NO:2 and the Genetic Code. Submitted concurrently herewith is Exhibit A for the convenience of the Examiner. Exhibit A provides SEQ ID NO:1 along with the regions encoding the MIST polypeptide of the present invention. Applicants remind the Examiner of M.P.E.P. 2163(I)(B), which was referenced *supra*. No new matter has been added.

Support for new Claims 55 and 56 may be found in original Claims 5 and 6, in paragraphs [0290], [0299], in Example 10, and in paragraphs [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the

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legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in SEQ ID NO:1 and 2 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants point out that nucleotides "320 to 1288" of SEQ ID NO:1 encode amino acids "1 to 323" of SEQ ID NO:2 which is apparent by reference to Figures 1A-B in conjunction with SEQ ID NO:2 and the Genetic Code. Submitted concurrently herewith is Exhibit A for the convenience of the Examiner. Applicants remind the Examiner of M.P.E.P. 2163(I)(B), which was referenced *supra*. No new matter has been added.

Support for new Claims 57 and 58 may be found in paragraphs [0143], [0156], in Figure 11, and in paragraphs [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in SEQ ID NO:1 and 2 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants point out that nucleotides "797 to 1279" of SEQ ID NO:1 encode amino acids "160 to 320" of SEQ ID NO:2 which is apparent by reference to Figures 1A-B in conjunction with SEQ ID NO:2 and the Genetic Code. Submitted concurrently herewith is Exhibit A for the convenience of the Examiner. Applicants remind the Examiner of M.P.E.P. 2163(I)(B), which was referenced *supra*. No new matter has been added.

Support for new Claims 59 and 60 may be found in paragraphs [0143], [0156], in Figure 11, and in paragraphs [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in SEQ ID NO:1 and 2 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants point out that nucleotides "1277 to 1648" of SEQ ID NO:1 encode amino acids "320 to 433" of SEQ ID NO:2 which is apparent by reference to Figures 1A-B in conjunction with SEQ ID NO:2 and the Genetic Code. Submitted concurrently herewith is Exhibit A for the convenience of the Examiner. Applicants remind the Examiner of M.P.E.P. 2163(I)(B), which was referenced *supra*. No new matter has been added.

Support for new Claims 61 and 62 may be found in paragraph [0266], and in paragraphs [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in

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SEQ ID NO:1 and 2 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants point out that nucleotides "1289 to 1540" of SEQ ID NO:1 encode amino acids "324 to 407" of SEQ ID NO:2 which is apparent by reference to Figures 1A-B in conjunction with SEQ ID NO:2 and the Genetic Code. Submitted concurrently herewith is Exhibit A for the convenience of the Examiner. Applicants remind the Examiner of M.P.E.P. 2163(I)(B), which was referenced *supra*. No new matter has been added.

Support for new Claims 63 and 64 may be found in paragraphs [0286], [0299], in Figure 11, in Example 10, and in paragraphs [0157], [0166], [0173], Figure 12 and the legend of Figure 12 in paragraph [0038], Figure 13 and the legend of Figure 13 in paragraph [0039], Figure 14 and the legend of Figure 14 in paragraph [0040], Figure 15 and the legend of Figure 15 in paragraph [0041], in Examples 2 and 11, in SEQ ID NO:1 and 2 of the Sequence Listing as originally submitted, and throughout the application as originally filed. Applicants point out that nucleotides "320 to 1279" of SEQ ID NO:1 encode amino acids "1 to 320" of SEQ ID NO:2 which is apparent by reference to Figures 1A-B in conjunction with SEQ ID NO:2 and the Genetic Code. Submitted concurrently herewith is Exhibit A for the convenience of the Examiner. Applicants remind the Examiner of M.P.E.P. 2163(I)(B), which was referenced *supra*. No new matter has been added.

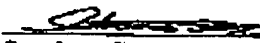
Support for new Claim 65 may be found in paragraphs [0049], [0050], [0051], [0058], [0092] of the instant specification, and throughout the application as originally filed. No new matter has been added.

Support for new Claim 66 may be found in paragraphs [0003], [0004], [0005], [0006], Figures 3A-B and the legend of Figures 3A-B in paragraph [0029], Figure 10 and the legend of Figure 10 in paragraph [0036], Figures 15A-B and the legend of Figures 15A-B in paragraph [0041], in Examples 1, 2, and 11 of the instant specification, and throughout the application as originally filed. No new matter has been added.

If any fee is due in connection herewith not already accounted for, please charge such fee to Deposit Account No. 19-3880 of the undersigned. Furthermore, if any extension of time not already accounted for is required, such extension is hereby petitioned for, and it is requested that any fee due for said extension be charged to the above-stated Deposit Account.

Respectfully submitted,

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**BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF
THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSES OF PATENT PROCEDURE****INTERNATIONAL FORM****RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT ISSUED PURSUANT TO RULE 7.3
AND VIABILITY STATEMENT ISSUED PURSUANT TO RULE 10.2****To: (Name and Address of Depositor or Attorney)**Bristol-Myers Squibb Company
Attn: Gena Whitney
P.O. Box 4000
Princeton, NJ 08543-4000**Deposited on Behalf of:** Bristol-Myers Squibb Company**Identification Reference by Depositor:**

PCMV-SPORT2-human MIST clones: hMIST 7,8,12

Patent Deposit Designation

PTA-2981

The deposit was accompanied by: a scientific description a proposed taxonomic description indicated above.The deposit was received January 26, 2001 by this International Depository Authority and has been accepted.**AT YOUR REQUEST:** ☒ We will inform you of requests for the strain for 30 years.

The strain will be made available if a patent office signatory to the Budapest Treaty certifies one's right to receive, or if a U.S. Patent is issued citing the strain, and ATCC is instructed by the United States Patent & Trademark Office or the depositor to release said strain.

If the culture should die or be destroyed during the effective term of the deposit, it shall be your responsibility to replace it with living culture of the same.

The strain will be maintained for a period of at least 30 years from date of deposit, or five years after the most recent request for a sample, whichever is longer. The United States and many other countries are signatory to the Budapest Treaty.

The viability of the culture cited above was tested January 31, 2001. On that date, the culture was viable.**International Depository Authority:** American Type Culture Collection, Manassas, VA 20110-2209 USA**Signature of person having authority to represent ATCC:**
Tanya Nunnally, Patent Specialist, Patent Depository**Date:** February 5, 2001

cc: Leslie Serunian

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Exhibit A

1 CCTAGAGCCAGCAGAGTCCAGGCTGCTGTTAACTTCATGTCCCCGTGGGTAGCAGGC 60
61 AGGTGCTTCTGTCTGATCTGGCTCTCCTTGACCACTGTACTCATCAAATAGACCAAGATC 120
121 CCCAGAGTCCAAGATCCTTACAAGGGGGCCAGAAAGGGATGAGCTTTCTGAAGAAGCACT 180
181 GATGTAAAATACCAGGAATTTTGACATCGAAGAAGATTTTGTGATGCCAGCTGGGATTT 240
241 GGCCATAATCTAGAAGACACATGGTGAATACAGTTGCAAGTCATTTAGTCATATTTCTTG 300
301 CTAAATTGCTGTCTTCAATGGCTGAATTGAAGATCCCTCTTACCCGCCAGGTGCCAAG 360
1 M A E L K I P L T R Q V P R 14
361 AACTATGAACAGGCAGGGCAATAGAAAGACAACCTAAAGAAGGATCCAACGATTGAAATT 420
15 T M N R Q G N R K T T K E G S N D L K F 34
421 CCAGAACTTCAGTCTGCCAAAAACAGGTCATGGCCTCGCATCAATAGTGCCACAGGCCA 480
35 Q N F S L P K N R S W P R I N S A T G Q 54
481 GTACCAGAGGATGAACAAGCCTCTTCTAGACTGGGAAAGAAACTTTGCTGCAGTCCTGGA 540
55 Y Q R M N K P L L D W E R N F A A V L D 74
541 TGGAGCAAAAGGCCACAGTGATGATGACTATGATGACCCTGAGCTTCGGATGGAAGAGAC 600
75 G A K G H S D D D Y D D P E L R M E E T 94
601 ATGGCAGTCGATTAAAATTTTACCAGCCCGGCTTATAAAGGAATCTGAATATGCAGATAC 660
95 W Q S I K I L P A R P I K E S E Y A D T 114
661 AACTATTTCAAGGTTGCAATGGACACTCCCCTTCGGTTAGACACCAGGACCTCTATCTC 720
115 H Y F K V A M D T P L P L D T R T S I S 134
721 CATTGGACAGCCGACCTGGAACACACAGACGAGGTTGGAAAGAGTGGACAAACCCATTTC 780
135 I G Q P T W N T Q T R L E R V D K P I S 154
781 CAAGGACGTGAGAAGCCAAAACATTAAAGGAGATGCATCCGTAAGAAAGAACAGATTCC 840
155 K D V R S Q N I K G D A S V R K N K I P 174
841 TTTACCACCTCTCGGCCCTCTCATAACACTTCCGAAGAAGTACCAACCCTTGCCCCCTGA 900
175 L P P P R P L I T L P K K Y Q P L P P E 194
901 GCCGGAGAGCAGCAGGCCACCTTTATCTCAGAGACACACCTTTCCAGAAGTCCAGAGAAT 960
195 P E S S R P P L S Q R H T F P E V Q R M 214

Exhibit A (Cont'd)

961 GCCCAGTCAGATAAGCTTAAGGGACTTAAGTGAGGTCCTTGAAGCAGAAAAAGTTCCTCA 1020
215 P S Q I S L R D L S E V L E A E K V P H 234

1021 TAACCAGAGGAAGCCTGAATCAACTCATCTGTTAGAAAACCAAATACTCAAGAGATTCC 1080
235 N Q R K P E S T H L L E N Q N T Q E I P 254

1081 ACTTGCCATTAGCAGTTCTTCATTACGACAAGCAACCACAGTGTGCAAAACAGAGATCA 1140
255 L A I S S S S F T T S N H S V Q N R D H 274

1141 TAGAGGAGGCATGCAGCCCTGTTCTCCTCAGAGATGCCAGCCTCCAGCCAGCTGCAGCCC 1200
275 R G G M Q P C S P Q R C Q P P A S C S P 294

1201 TCACGAAAAATACTGCCCTATAAATACACAAGCTGGAGACCACCTTTCCCCAAAAGGTC 1260
295 H E N I L P Y K Y T S W R P P F P K R S 314

1261 TGATAGAAAGGATGTCCAGCACAATGAATGGTACATTGGAGAATACAGCCGCCAGGCAGT 1320
315 D R K D V Q H N E W Y I G E Y S R Q A V 334

1321 GGAAGAGGCATTTCATGAAGGAGAACAGGATGGTAGTTTCTTGGTCCGAGATTGTTCCAC 1380
334 E E A F M K E N K D G S F L V R D C S T 354

1381 AAAATCCAAGGAAGAGCCCTATGTTTTGGCTGTGTTTTATGAGAACAAGTCTACAATGT 1440
355 K S K E E P Y V L A V F Y E N K V Y N V 374

1441 AAAAATCCGCTTCTCGAGAGGAATCAGCAGTTTGCCCTGGGGACAGGACTCAGAGGAGA 1500
375 K I R P L E R N Q Q P A L G T G L R G D 394

1501 TGAGAAGTTTGATTCACTAGAGACATCATCGAACACTACAAGAATTTCCCATTTACT 1560
395 E K F D S V E D I I E H Y K N P P I I L 414

1561 AATTGATGGGAAAGATAAACTGGGGTCCACAGGAAACAGTGTACCTCACTCAGCCACT 1620
415 I D G K D K T G V H R K Q C H L T Q P L 434

1621 CCCTCTCACCAGACACCTCTTGCCCTCTGTAGCCTGGTCTTTGTGTTATCTTTGGTTTACT 1680
435 P L T R H L L P L * 443

1681 GGATTACGCGCTTCCATTGTTTTCAATTGATTTCAAAAGTTTATTTTCTGTGCCTTCAAGG 1740

1741 GACAACTTTTTTAACCTTTGGAGAAAAGAAAACACTCTATAACAGACAGTGGAAAATCAC 1800

1801 TCACGGTTTTGAAAGTTCAAACCACAGAGAAAATATTTATAACATGCAAAA 1851